MISSOURI TIMBER PRICE TRENDS

Jan.-March, 2013, Vol. 23 No. 1
Missouri Department of Conservation, Forestry Division

Doyle (North) Stumpage Prices

	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.		# of Rpts.
Veneer								
Walnut, Black	$5,300	$1,050	$1,845	$2,445	$2,415	17	Doyle - MBF	5
Sawlogs								
Ash	$260	$30	$95	-	-	34	Doyle - MBF	5
Hackberry	$80	$80	$80	$80	-	18	Doyle - MBF	3
Hard Maple	$290	$30	$90	-	-	86	Doyle - MBF	5
Hickory	$290	$30	$90	$90	-	112	Doyle - MBF	11
Mixed Hardwoods	$315	$50	$160	$150	$80	680	Doyle - MBF	16
Oak (mixed species)	$310	$70	$150	$135	$150	892	Doyle - MBF	12
Post Oak	$215	$130	$185	$110	-	9	Doyle - MBF	4
Red oak (group)	$600	$70	$120	$105	$85	1,067	Doyle - MBF	16
Soft Maple	$210	$150	$190	$155	$200	291	Doyle - MBF	4
Walnut, Black	$1,240	$500	$730	$775	$820	126	Doyle - MBF	15
White oak (group)	$800	$130	$195	$190	$190	1,722	Doyle - MBF	15

International (South) Stumpage Prices

	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.		# of Rpts.
Sawlogs								
Hickory	$260	$50	$155	$160	$170	261	Int. - MBF	17
Mixed Hardwoods	$365	$100	$225	$215	$210	589	Int. - MBF	11
Oak (mixed species)	$250	$70	$165	$170	$140	1,643	Int. - MBF	18
Post Oak	$125	$70	$90	$85	$110	57	Int. - MBF	10
Red oak (group)	$260	$120	$210	$200	$175	4,454	Int. - MBF	21
Shortleaf Pine	$260	$55	$135	$165	$125	90	Int. - MBF	11
Walnut, Black	$890	$85	$560	$570	-	35	Int. - MBF	6
White oak (group)	$280	$110	$210	$190	$175	766	Int. - MBF	22

This quarter, in response to requests, we are also publishing all prices converted into dollars per board foot (BF). See the tables below and let us know what you think.

Doyle (North) Stumpage Prices

	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.	# of Rpts.
Veneer							
Walnut, Black	$5.30	$1.05	$1.84	$2.44	$2.42	Doyle - BF	5
Sawlogs							
Ash	26¢	3¢	9¢	-	-	Doyle - BF	5
Hackberry	8¢	8¢	8¢	8¢	-	Doyle - BF	3
Hard Maple	29¢	3¢	9¢	-	-	Doyle - BF	5
Hickory	29¢	3¢	9¢	9¢	-	Doyle - BF	11
Mixed Hardwoods	31¢	5¢	16¢	15¢	8¢	Doyle - BF	16
Oak (mixed species)	31¢	7¢	15¢	14¢	15¢	Doyle - BF	12
Post Oak	22¢	13¢	18¢	11¢	-	Doyle - BF	4
Red oak (group)	60¢	7¢	12¢	10¢	8¢	Doyle - BF	16
Soft Maple	21¢	15¢	19¢	16¢	20¢	Doyle - BF	4
Walnut, Black	$1.24	50¢	73¢	78¢	82¢	Doyle - BF	15
White oak (group)	80¢	13¢	19¢	19¢	19¢	Doyle - BF	15

International (South) Stumpage Prices

	High	Low	Avg.	Last Qtr.	Last Yr.	Vol.	# of Rpts.
Sawlogs							
Hickory	26¢	5¢	16¢	16¢	17¢	Int. - BF	17
Mixed Hardwoods	37¢	10¢	23¢	22¢	21¢	Int. - BF	11
Oak (mixed species)	25¢	7¢	17¢	17¢	14¢	Int. - BF	18
Post Oak	13¢	7¢	9¢	8¢	11¢	Int. - BF	10
Red oak (group)	26¢	12¢	21¢	20¢	18¢	Int. - BF	21
Shortleaf Pine	26¢	6¢	13¢	16¢	12¢	Int. - BF	11
Walnut, Black	89¢	9¢	56¢	57¢	-	Int. - BF	6
White oak (group)	28¢	11¢	21¢	19¢	18¢	Int. - BF	22

Published timber prices are based on a rolling average of reports received over the last four issues - that is, one year. Refer to the column headed “# of Rpts.” to get a gauge of how accurate the average prices may be. (“# of Rpts.” refers to the number of sales including a particular species and may sum to more than the number of sales.) Changes since last quarter and last year should be read with caution as the number of reports varies each year and quarter. This report can only be used as a general guide for determining market value of timber. General market and economic conditions, as well as local considerations such as accessibility, terrain, sale size, and tree size and quality also affect the price paid.

Please see the map on page 7 for a definition of reporting regions, which we have renamed Doyle (North) and International (South).

In this issue, volumes are reported in International ¼" MBF Scale, Doyle MBF, and International ¼" board foot scale and Doyle board foot scale (depending on the region of the state). To convert volume from Int.-MBF to Doyle MBF, divide by 1.2. To convert prices from Int.-MBF to Doyle MBF, multiply by 1.2. To convert from MBF to BF (prices or volume), divide by 1,000.

Foresters reported stumpage prices resulting from 88 timber sales containing 120,029 MBF located throughout the state. There were 51 reports from Private lands and 37 reports from MDC lands. There were 73 reports from MDC foresters, 14 reports from Consultant foresters and 1 reports from Other foresters. We would particularly like to thank these Consulting Foresters for contributing their reports: Mr's. Suchland, Lohmann, Lumb, Yarnell, Dwyer, Enyart and Jenkins.

Prices included in this report are reported by foresters for either private land or stateland (MDC) timber sales. Timber prices received for timber sales on Mark Twain National Forest (USFS) can be obtained at the following website: http://www.fs.fed.us/forestmanagement/products/sold-harvest/cut-sold.shtml
The next quarterly edition of Timber Price Trends will also start incorporating USFS timber sales for your use and comparison.

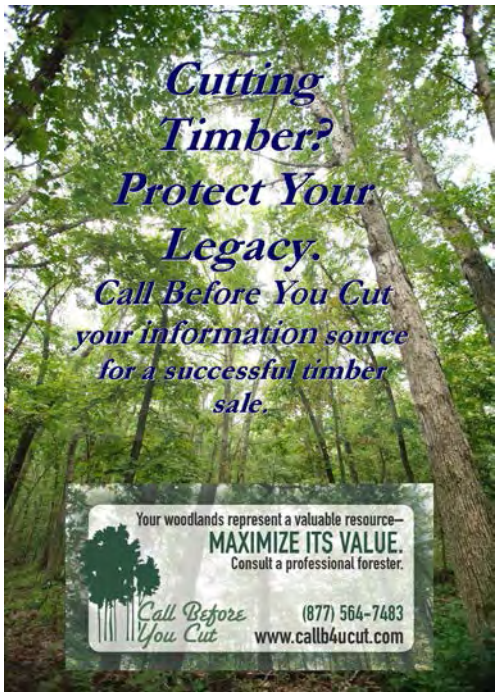
Editor's Note

We've made some changes with this issue of the Missouri Department of Conservation's *Timber Price Trends*. Due to a slow economy, and the voluntary nature of timber sales reporting in Missouri, the number of reports we receive has fallen off in recent years. This has meant that some average prices were based on very few reports! Due to these issues, we began calculating average prices based on a rolling dataset of all reports from the past 12 months, with the oldest reports dropping out as new ones come in. This should provide more reports to back up each average price, as well as removing some artificial volatility from the numbers.
We have also reduced the number of reporting regions from three to two (North/ Doyle and South/ International), again upping the number of reports that go into each published price. Each region will report prices in their "native" scale (Doyle or International) with no "Statewide" attempt to convert and merge the two.

We would like to thank the members of MOFRAC who helped with this change in direction, as well as the Missouri Consulting Foresters Association and the Missouri Department of Conservation, both of whom have taken "steps" to encourage more reporting from their members and employees.

Remember that one of the most valuable sources for information on log and timber markets is the local Missouri Department of Conservation Resource Forester or your Consulting Forester. Contact the nearest Forest District office for up-to-date, local advice. The Missouri Department of Conservation's Forestry Division, (573) 751-4115, will be happy to provide you with the name and address of the Resource Forester or MDC Regional Office nearest to you. You can locate a Consulting Forester by visiting the Mo. Consulting Forester's Association web site at: *www.missouriforesters.com* or by visiting the Private Land Assistance page of the MDC website *http://mdc.mo.gov/landown/* and clicking on the "Conservation Assistance Contractors" link.

Jason Jensen and Tom Treiman, Editors



The logger plays a critical role in the harvesting of your timber sale. The Master Logger Certification (MLC) program can make your choice of selecting a logger easier. The MLC program can help provide piece of mind for the landowner. Master Loggers are professional, properly trained, and meet the highest standards placed on the industry today. The MLC program is a performance based program that recognizes both training and experience. To find a Master Logger in your area visit the following website: http://www.moforest.org/MLC/mmldirectory.html

The Professional Timber Harvester (PTH) program provides four levels of chainsaw safety training and provides instruction on use and implementation of "best management practices" and forest management. PTH trained loggers possess the knowledge to harvest your timber while insuring that your residual trees, soil, and property are properly cared for. To locate a PTH trained logger in your area visit the following website: http://www.moforest.org/loggersindex.php

Tom Treiman and Jason Jensen, Editors

Lumber Prices Are Getting Ahead Of the Housing Market

By EconMatters

You have come a long way baby

The lumber market has really come off the 2009 bottom of $140 per mbf and closed Friday at $399.80 per mbf on the back of good news out of the housing sector of the economy.

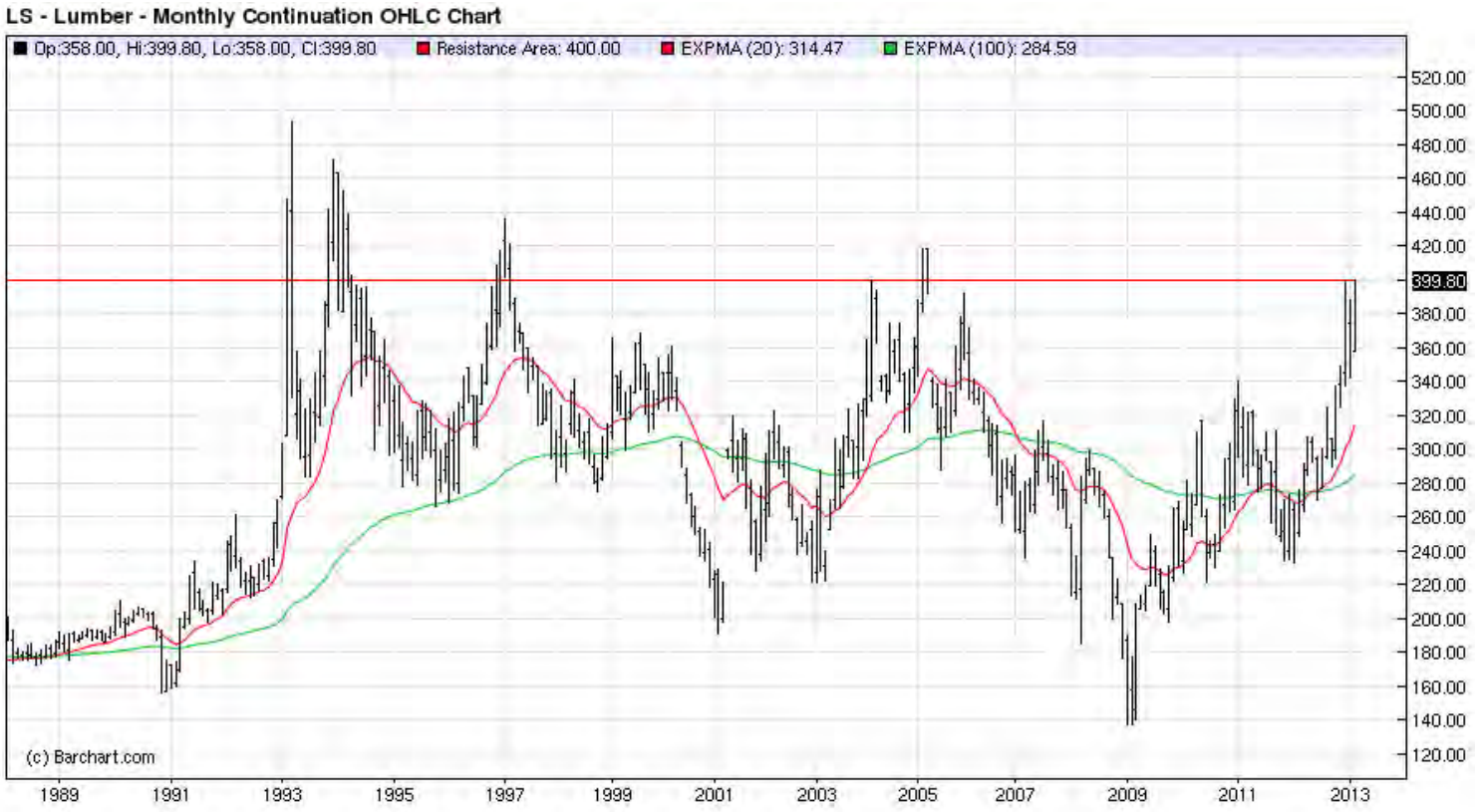
The housing sector of the economy led the way in 2012 with record low interest rates, and investors and banks working through the foreclosed inventory, leading to a trending and steady rise in both average home prices and new constructions.

Everything related to the housing sector performed well in 2012 from materials to the home improvement and remodel.

Lumber prices getting slightly ahead of themselves?

But if we examine the history of lumber prices relative to the strength of the housing sector, lumber prices may be getting slightly ahead of themselves from a valuation standpoint.

Lumber prices will probably break through the $400 level on trading momentum alone, but if we look at the charts most of the time lumber prices are south of the $400 level.
The all-time high for lumber prices established in 1993 was just shy of $500 on a spike, with additional spikes of $440 in 1997, and $420 in 2005. So we are now basically sitting at $400 and in spike territory based upon the charts.



I will be watching lumber for some additional upside momentum, and looking for a good entry on a longer term reversion to the mean short in the commodity as I think the risk and reward dynamics are setting up nicely in lumber for an eventual short once the momentum is exhausted.

Cheap capital chasing returns fueling the upside momentum

The US economy is looking for all the good news it can get, and housing has definitely improved but lumber prices are pricing towards the best ever levels in the housing market from a comparison standpoint.

I know that a lot of investment capital has moved into anything housing related seeking a return with a bunch of easy access to cheap capital.

As a result prices can move well beyond historical valuation models, and I think they will definitely test the $420 and $440 levels as a direct result of liquidity flows.

But from a historical valuation standpoint prices just do not stay for long at these elevated levels, and once the housing euphoria trade loses momentum, prices should fall more in line with historical norms around the $320 per mbf level.

Therefore, the higher prices get pushed up on the crowded investment spike this year, the better risk reward trading setup for shorting the lumber market in the future looking for a high probability reversion to the mean trade.

2013 American Forest "Big Tree Madness" Winner – Ozark Chinkapin

1Q13 Market Conditions
By Jason Jensen

The New Year brings new hope for improving markets. Markets have been stable to slightly improving throughout the last quarter.

Logging conditions remained good for the first half of the quarter. The last half of the quarter was more typical of winter logging conditions in Missouri. Many mills are short on logs and lumber for buyers. There continues to be much competition for standing timber especially in the SE Missouri Ozarks where the railroad tie market drives the timber markets. Tie markets remain stable as are markets for pallet and flooring lumber grades. Pine markets may be showing slight improvement. A few pine ties are being cut along with posts, poles, and shavings. A few mills are also sawing cants that are being sold and re-sawn into dimensional lumber.

Stave quality white oak and walnut provide the bright spot in the timber economy especially in the northern portion of the state. Good walnut prices can be a double edged sword. I've heard from foresters, loggers, and sawmills that they have seen an increasing trend towards harvesting small diameter walnut. A market for a certain product doesn't necessarily mean it is the best time to harvest the product from an economic perspective. Walnut can increase in value expotentially as it continues to increase in diameter growth. Consult a forester for local market conditions and for reliable information on when to harvest your trees.

The housing market and general economy continues to show signs of improvement but at a very slow pace. To see a dramatic improvement in housing, we need jobs. A recent article in US News and World report indicated that 42% of US households with the head of the household under age 65, are receiving some form of government aid. This is pretty alarming. Long term improvements to the economy and housing markets are hard to conceive until that situation improves.

A Lumber Boom That's Built to Last

BRENT JANG
VANCOUVER — The Globe and Mail

Chris McIver no longer winces when he looks at a map of his company's sawmills in British Columbia, Alberta and the U.S. Southeast.

With the pain dissipating from an era of low lumber prices, he has turned optimistic and is pleased to see West Fraser Timber Co. Ltd.'s sawmills receiving a stream of orders from wholesalers and distributors.

"The economy went into a recession in 2008, but the lumber business went into a depression," said Mr. McIver, West Fraser's vice-president of sales. "For the last five years we've been waiting for some sort of recovery, but we are really beginning to feel like things are getting better."

After being a wallflower for what feels like an eternity, lowly lumber has finally joined the commodity party. Lumber prices have surged to their highest level in nearly eight years, busting out of a slump and lifting the outlook for producers. The commodity's comeback has been a roller-coaster ride, but in this latest phase, industry experts say the highs will persist for longer while the lows won't be as harrowing as in the past.

Lumber's winning streak has been fuelled by a rebound in U.S. housing starts, robust exports to China, restricted timber supplies in Canada and a series of North American sawmill closures. "Historically, high lumber prices have been transitory, lasting only for a period of months. Lumber markets will still be volatile, but structurally, with the changes in supply and demand, we see a period of sustained higher prices," said Daryl Swetlishoff, forest products analyst at Raymond James Ltd.

Prices for benchmark two-by-fours made from Western spruce, pine and fir have hit $390 (U.S.) for 1,000 board feet, with a notable a spike of $100 since October. The 34-per-cent price jump over the past three months has spurred forecasts of a commodity supercycle in which the long-suffering lumber market will enter a multiyear rally.

Canadian producers benefiting from softwood lumber's resurgence include West Fraser, Canfor Corp., International Forest Products Ltd. and Western Forest Products Inc.

"Lumber companies that have survived the downturn are now well-positioned to take advantage of the recovery. U.S. housing starts are moving up steadily," Mr. McIver said. There were an estimated 780,000 U.S. housing

starts in 2012, up 28 per cent from 2011, and the upward trajectory is widely expected to continue this year.

After falling to $130 for 1,000 board feet in early 2009, lumber cash prices rallied to surpass $300 in January, 2011, according to data compiled by industry newsletter Madison's Lumber Reporter.
After a pullback to $210 in the spring of 2011, lumber prices have shot up to their recent level of $390, tripling over the past four years and bolstering producers along the way. Vancouver-based West Fraser's shares, which traded above $50 (Canadian) in the fall of 2004, got hammered by the 2008-09 recession, with the stock price tumbling to $19.91 in July of 2009. West Fraser shares have clawed their way back and closed at a record-high on Monday of $79.34 – gaining 88 per cent over the past eight months and quadrupling since the summer of 2009.

Keta Kosman, publisher of Madison's Lumber Reporter, said there will be a brief lull when orders from China slow due to the Chinese New Year on Feb. 10, but U.S. requests will start ramping up in February in anticipation of spring home building. Lumber production at Canadian sawmills in October posted a higher-than-expected increase of 7.7 per cent from a year earlier, and prices have ascended through what would normally be a winter slowdown, Ms. Kosman said. "The price jumps have been juicy, and there is still room for improvement," she said, noting that lumber traded at $440 (U.S.) for 1,000 board feet in the spring of 2004.

On the supply side, there are constraints due to timber harvest reductions in Quebec and mountain pine beetles decimating forests in the B.C. Interior.

The combination of a revived U.S. housing market and tightened timber supplies will help spark an unprecedented super cycle for lumber – a long period of rising prices for the commodity, Mr. Swetlishoff said. While there will some bumps ahead, lumber is in the early stages of an extended bull run, he said.

Canadian producers are pleasantly surprised by the buoyant market for wood products, said Ric Slaco, vice-president and chief forester at Vancouver-based International Forest Products. "Customers are identifying that they have a need for lumber, and sawmills cut to the requirements," Mr. Slaco said. "There is a sense of stability and advances in orders to Asia provide geographic diversity. Strength in lumber prices is giving the industry a sense of optimism for 2013."

Canfor Corp. is among the companies investing money to upgrade or expand sawmills to make them more efficient. Vancouver-based Canfor reopened its mill at Radium Hot Springs, B.C., last October and will upgrade a B.C. mill at Elko and another at Mackenzie at a cost of $40-million for each project this year, a focus on growth after the industry scaled back for years. An analysis by Forest Economic Advisors shows that 58 mills have been dismantled over the past five years in North America, part of 146 plants that suffered shutdowns at one point or another, representing 19 per cent of the continent's lumber production capacity.

Over the long term, there will be demand for building materials in reconstruction projects arising from widespread damage inflicted by the tsunami on Japan in 2011 and Hurricane Sandy in the U.S. Northeast in 2012.

Weyerhaeuser Posts Best Sales in Four Years on U.S. Housing Recovery

Reuters

Weyerhaeuser Co, a century-old producer of forest products, reported its highest revenue in more than four years, adding heft to recent government data showing that a recovery in the U.S. housing market has taken hold.

Fourth-quarter revenue rose 25 per cent to $2-billion (U.S.) – best since the third quarter of 2008 – and the company said it expected significantly higher current-quarter earnings in its wood products business, its largest.

The business, which sells lumbers and structural panels to residential and light commercial markets, had net revenue of $832-million in the December quarter. About 21 per cent of the company's pretax earnings of $182-million came from the business.

Chief Executive Dan Fulton said the recovering housing market helped Weyerhaeuser improve its

profit and raise dividend last year, and that the company would look to build on that.

Housing starts rose 12.1 per cent last month to their highest level since June 2008, a report from the U.S. Commerce Department showed last week. Permits for future home construction were also the highest in about 4-1/2 years.
The recovery in the housing market has already helped Weyerhaeuser, with its shares jumping 58 per cent over the past year. It has a market value of about $17-billion. Rival Plum Creek Timber Co Inc's shares rose 21 per cent.

Weyerhaeuser, starting out as Weyerhaeuser Timber Co in 1900 when Frederick Weyerhaeuser and 15 partners bought 900,000 acres of timberland, now owns or controls more than 6 million acres, mainly in the United States, and manages another 14 million acres under long-term licenses in Canada.

Its net income for the fourth quarter more than doubled to $143-million, or 26 cents per share, from $65-million, or 12 cents per share, a year earlier. Gross margin rose 41 per cent to $420-million.

Analysts had expected a profit of 21 cents on revenue of $1.82-billion for the Federal Way, Washington-based company, according to Thomson Reuters I/B/E/S.

Congress Introduces Forest Products Fairness Act to Help Include Family-Grown Forest Products

March 5, 2013

American Forest Foundation Applauds Leadership of Co-Sponsors Pryor, Blunt, Thompson, and Schrader

WASHINGTON—United States Senators Mark Pryor (D-AR) and Roy Blunt (R-MO), and Representatives Glenn Thompson (R-Pa.) and Kurt Schrader (D-Ore.), today introduced the Forest Products Fairness Act of 2013.

Sens. Pryor and Blunt and Reps. Thompson and Schrader authored the legislation so that American-made, home-grown forest products can qualify for the U.S. Department of Agriculture's (USDA) BioPreferred® program. The BioPreferred® program is designed to set a federal government purchasing preference and a voluntary label to promote markets for biobased products.

As currently implemented, most forest products, including products grown by America's more than 10 million family forest owners, have been excluded from the USDA BioPreferred program.

"The Forest Products Fairness Act (FPFA) of 2013 is a simple fix—it treats forest products like the biobased products they truly are. It's hard enough for family forest owners to afford and maintain forestland; we don't need to make it even harder by shutting out new markets for forest products that can help family forest owners reinvest in their woodlands. That's why this simple fix could have big impact," said Tom Martin, President and CEO of the American Forest Foundation (AFF).

AFF, along with a coalition of 90 organizations and companies, has endorsed the Forest Products Fairness Act of 2013. When an identical bill was introduced by these Congressional leaders in 2012, it garnered bipartisan support in the House and the Senate.

"By placing home-grown forest products at a disadvantage, the USDA BioPreferred program hurts the health of our nation's forestland, family forest owners, and rural communities. The Forest Products Fairness Act allows home-grown companies to expand and compete on the same level playing field as international counterparts," Senator Pryor said.

Over the next 50 years, forest losses are expected to range from 16-34 million acres, according to the U.S. Forest Service 2010 Resources Planning Act Assessment. Without strong markets for forest products, this trending loss of forestland will be hard to reverse —as the nation's more than 10 million woodland owners struggle to make ends meet so they can keep their woodlands intact.

"Forestry is an important economic driver in rural Missouri and nationwide," Senator Blunt said. "I'm glad to support this bipartisan bill, which will help increase economic opportunities for job creators and help our

forestry producers compete in a competitive global economy."

"A strong forest industry is essential to the 5th District of Pennsylvania and our country as a whole, and is also critical to helping sustain healthy, well managed forests, and growing the local economies that rely on them," Representative Thompson stated.

"The Forest Products Fairness Act is about promoting U.S. jobs and U.S.-made products and taking every step possible to support the entire economic chain of the forest industry. By expanding forest product market opportunities we will build a stronger industry, from the families who do the harvesting to the manufacturers who produce forest products, which will help sustain and grow the economic output associated with a vibrant timber sector," Rep. Thompson stated.

Markets for forest products are at an all-time low—with more than 1,000 mills shuttered in the last 10 years and more than 320,000 jobs lost since 2005.

"In my time in Congress, I have been staunchly committed to strengthening our nation's economic recovery and increasing investment in Oregon's rural communities," Rep. Schrader said. "This bill furthers that commitment by addressing the absurdity of wood products currently being excluded from the bio-based definition and updating the antiquated definition to accurately portray the significant role our timber communities play in our nation's economic output," Representative Kurt Schrader said.

Strong Oak Demand, Price Increases

By Andy Johnson | 03/05/2013 8:53:00 AM

Expanding residential flooring sales in North America and exploding Chinese consumer demand for American oak in flooring and other furnishings will drive additional red oak price increases over the next two months.

Improving U.S. markets for cabinets, stairs, moulding and millwork will also give red oak a lift, as will brisk shipments to Mexico. With demand growing across such a broad spectrum of markets, virtually every red oak item will move easily. In fact, red oak sales will be limited more by relatively low production and slow winter kiln turns than by demand. Barring a sudden, unexpected turnaround in economic conditions, European markets for white oak won't break out of the doldrums for at least another six months. Shipments to Europe won't decline much from current levels, however, and any declines will be offset by increased shipments to fast-growing markets like Vietnam, Indonesia, Thailand and Turkey—each of which imported at least 45% more U.S. white oak in 2012 than 2011.

Importantly, we also expect rising prices and tight supplies of red oak to bolster white oak demand in China, the largest foreign market. In North America, sales of 4/4 #2&3A Common white oak will remain strong to residential flooring plants.

A New Life for Wood

The material can reshape urban construction while helping reduce emissions

By MEG HANDLEY- US NEWS 3/2/2013

This week some of the world's greatest visionaries assembled in Los Angeles for the annual TED conference, an intellect-enriching buffet serving everything from cutting-edge cancer detection technology to life lessons learned from a two-time world yo-yo champion. Vancouver-based architect **Michael Green** added his specialty to the lineup, speaking about how one material—wood—has the potential to reshape urban construction while also meeting growing worldwide housing demand and meaningfully addressing climate change. Excerpts:

You've called wood the "most technologically advanced building material in the world." How is that?

Mother Nature holds the patent on the most sophisticated building materials. We have, as mankind, really ignored this material for a century because we've become, in a way, quite lazy in thinking that steel and concrete are the only way.

We used to build big buildings with wood. Now we're taking ideas that were pre-Industrial Revolution, early 1900s and bringing them back. It's a dramatic change, and it's a new way to build a skyscraper.

How does using more wood in building help address greenhouse gas emissions and climate change?

Steel and concrete—[virtually] the only way to build in cities for the last 100 years—are high energy, high carbon footprint materials: Steel is over 3 percent of greenhouse gases, and concrete is 5 percent, so together those two materials alone are 8 percent of the world's greenhouse gas emissions. Wood on the other hand sequesters carbon, and that's the game changer. We're at the cusp of a revolution—that high carbon footprint, high energy buildings are completely unacceptable, just like we're starting to say that about cars and other transportation.
To address climate change we have to reduce our emissions and find ways to store carbon dioxide. To do that, we need new ways to build, and wood is [one of] the only building materials we use that does both those things. I don't dislike steel and concrete—they're good materials. I just want to use a lot less of those materials.

How do you use more wood in building projects and not run into deforestation?

Deforestation is about 18 percent of man's contribution to climate change—it's a huge problem. But I think part of the solution to deforestation is actually creating an economic incentive to plant trees, basically making it more profitable to plant trees than to cut them down and plant crops.
Also, I've seen huge changes in just the past five years toward understanding that as long as the wood you source to build buildings is coming from sustainably harvested, well-managed forests, then to me it's not a dramatic difference from what we already expect from our farmers: Care for the land safely and grow crops every year.

How has the architectural community received your pitch to make wood a bigger part of urban construction?

I've met with one of the biggest engineering firms in the world, and the head of their wood engineering group said they've been asked to build with wood more this year than ever before in his career. I think this is the beginning of a significant change in the role of wood in our building. We've assumed that the solution to our building challenges is through technology, but sometimes the simplest things are the solution. We're starting to realize that there's some very commonsense things we can do to address some major issues—they're not glamorous, but they're really good.

Biomass Boiler is a District 32 Success Story By Amanda Layton- Perryville News

Despite a winter with numerous days of freezing temperatures, students at Perry County School District 32 enjoy toasty, warm classrooms courtesy of an innovative heat source.

This is the second heating season of a state-of-the-art biomass boiler system that been used to provide heat to a portion of the campus. "We use it to heat the Old Senior High and the High School," said Perry County School District 32 Superintendent Kevin Dunn. "And it has been working out very well, just as we had anticipated."

In 2010, District 32 was one of seven public school districts that received funding for a new a boiler system that uses wood biomass as fuel.

The local school district received roughly $970,000 for the project, and of all seven grants awarded in the state of Missouri, Perry County received the largest amount of money, and was the largest school district to participate in the Fuels for Schools project — a cooperation between the Missouri Department of Conservation and the USDA Forest Service's State and Private Forestry program, that awarded nearly $6 million in grants to school districts in Missouri.

The grant was funded through The American Recovery and Reinvestment Act (ARRA).

"Applying for that grant was a no-brainer," Dunn said. "The boiler in the Old Senior High was worn out and the estimated cost to replace it at that time was approaching $500,000, so the grant helped us out tremendously to fund a project we needed to do anyway."

Tucked behind the Old Senior High in a newly constructed red shed, is the boiler. It is a technological marvel. Through a complex conveyor system, the self-feeding machine burns roughly a tractor-trailer-load and a half of wood chips that are currently provided by local wood

supplier East Perry Lumber Company approximately every 10 days during heating season.

The boiler burns the fuel, then heats water that is piped through a system in the school buildings to provide warmth.

Long-time District 32 maintenance supervisor Glen Brickhaus handles the upkeep and routine maintenance on the boiler. Dunn praised his efforts.

"Prior to getting the biomass burner at school, Glen had installed an outdoor wood burner at his own home, so he understands very well what we are accomplishing here," Dunn said. "He has done a great job keeping up with the burner."

The extraordinary thing about the biomass boiler is the efficiency at which it burns.

According to Dunn, the ashes left from the tractor trailer load and a half that is used to fuel the boiler is burned down to less than 30 gallons of ash that the school grounds workers then spread as fertilizer at different locations across the school campus.

"It is an incredible setup," Dunn said. "And we have been very pleased with the service and quality of product being provided by East Perry Lumber Company. Their customer service has been top notch."

Prior to the boilers installation, there were some in the community who expressed concerns about how it would affect air quality on the school's campus, and if that air quality would have a negative impact on the health of the children who attended the school. Dunn said the boiler burns so efficiently and clean that, now that it is up and running, they have had absolutely no negative comments or feedback.

In fact, the district went above and beyond what was required to meet state air quality standards. Dunn said in addition to the biomass boiler grant, District 32 applied for and received additional funding that provided an electrostatic precipitator that further cleans the air.

"We were already well above the EPA standards before installing the ESP, but the money was there to pay for one, and why not take it?" Dunn said. "We don't have a smell of wood smoke and anyone walking on to the campus doesn't even realize we are burning wood, which is incredible in and of itself, because when one house in a neighborhood is burning in a fire place, the whole area smells of wood smoke. Here, we are burning enough to heat two large buildings and there is no odor or substandard emission. There is no smoke coming from a chimney. The most a person may see on a very cold day is vapor rising from the stack."

The best thing about the boiler has been the cost savings the district has enjoyed.

"We didn't use it the full season last year," Dunn said. "We didn't fire it up until December, and we saved about $20,000 in fuel costs from the year before.

The engineers told us we would save between $25,000 and $30,000 annually, and I feel confident we will see that again this year."

Dunn said the district still relies on natural gas to run a second boiler located in the Senior High Building.

"The biomass boiler will help us extend the life of that boiler which was very new, and although we still have natural gas to fall back on in case of an emergency, we don't have to use it as frequently," he said.

Dunn said he has had many other districts comment that should the Fuels for Schools grant become available again they too would leap at the chance to participate.

"It was a great opportunity for our school," he said. "And it is good to serve as an example."

Forest Roads Litigation Update

*By Richard W. Goeken**

Today, the Supreme Court issued its long-waited decision in Decker v. NEDC, No. 11–338. The Supreme Court's decision reversed the Ninth Circuit Court of Appeals and, in a 7-1 ruling, upheld the Environmental Protection Agency's (EPA) interpretation that storm water runoff collected from forest roads was exempt from federal permitting requirements under the Clean Water Act. Specifically, the Court deferred to EPA's determination that the ditches, channels and culverts that collect storm water runoff from forest

roads are "directly related" only to the harvesting of raw materials, rather than to "manufacturing, processing, or raw materials storage areas at an industrial plant" and are therefore exempt from federal permitting. The Court further noted that EPA's interpretation exempting forest road run-off from federal permitting had been the agency's well-established practice and was not merely the result of a recent change resulting from shifting policy preferences or as the result of litigation against the agency.

Of particular interest to FLA members is the Court's explanation that it was reasonable for EPA to exempt run-off associated with forest roads from federal permitting requirements because the State of Oregon, where the case had arisen, had a comprehensive system of Best Management Practices that directly addressed the issue. Specifically, the Court noted that: [Oregon's Best Management Practices] include rules mandating filtration of storm water runoff before it enters rivers and streams, Ore. Admin. Rule 629– 625–0330(4) (2012); requiring logging companies to construct roads using surfacing that minimizes the sediment in runoff, Rule 629–625–0700(2); and obligating firms to cease operations where such efforts fail to prevent visible increases in water turbidity, Rule 629–625–0700(3). Oregon has invested substantial time and money in establishing these practices. In addition, the development, siting, maintenance, and regulation of roads—and in particular of state forest roads—are areas in which Oregon has considerable expertise. In exercising the broad discretion the Clean Water Act gives the EPA in the realm of storm water runoff, the agency could reasonably have concluded that further federal regulation in this area would be duplicative or counterproductive.

Plainly, the existence of these state Best Management Practices was a significant aspect of the Supreme Court's decision. In this regard, the Water Committee of the Southern Group of State Foresters published a report in September 2012 assessing the "Implementation of Best Management Practices" in the Southern Region and noted a "generally positive change" with respect to implementation of state BMPs for forest roads across the region.

Additional information and background about the case can be found in the 2013 January/February edition of Forest Landowners Magazine, "The Long and Winding Road Continues."

FLA CEO Scott Jones commented, "This is a significant win for private forest landowners but we are still exposed to the promise of the NEDC to continue litigation until permits are required for all forest roads. This is exactly why Congress must act to make it clear that forest roads are not point sources of pollution under the Clean Water Act thus bringing certainty to all private forest landowners."

Responses of Wildlife to Clearcutting and Associated Treatments in the Eastern United States-Effects of Clearcutting on White-Tailed Deer

reprinted from a portion of an extension publication by Clemson University

We begin this review of the literature on clearcutting with white-tailed deer because this species has been thoroughly researched and its needs are perhaps the best known of any game animal in the United States. Clearcuttings have been found to enhance deer habitat in most regions, even in the snowbelt portions of the north central and northeastern states, providing that nearby shelter against cold winter winds is available (Verme 1965, Krefting and Phillips 1970, Newton et al. 1989, Hughes and Fahey 1991).

Most studies indicate that the first few years after clearcutting, deer foods (succulent stems of woody plants, forbs, and grasses) increase to their highest level of abundance and availability (Martin et al. 1955, Halls and Crawford 1960, Schuster and Halls 1963, Ripley and Campbell 1960, Murphy and Ehrenreich 1965, Harlow et al. 1966, Harlow and Downing 1969, Crawford et al. 1975, Hunt et al. 1976, Blair and Brunett 1980, Hurst and Warren 1981, Stransky and Halls 1981, Smeins and Hinton 1987). Other beneficial changes include short-term increases in the nutrient values of deer foods (Thill and Morris 1983, Thill et al. 1990, Hughes and Fahey 1991), larger and heavier twigs (Hughes and Fahey 1991),

and in some vegetation types, increases in fruit production of certain shrubs (Harlow et al. 1980).

There are some regional differences in the effects of clearcutting on the duration of choice deer foods. For example, in Maine, where the growing season is short, woody browse remains available to deer up to 9 years (Newton et al. 1989), while plants can grow out of reach of deer by the 4th or 5th growing season in rich cove sites of the Southern Appalachians (Harlow and Downing 1969). In east Texas, Blair and Brunett (1980) reported that browse production was highest 2 years after logging, declining thereafter. Seven years later, forage production had declined by 52% and deer had begun browsing pine needles and other non-preferred species.

Most studies have found that deer use clearcuts throughout the year (Harlow and Downing 1969, Cushwa et al. 1970, Blymer and Mosby 1977). However, Wentworth (1989), Wentworth et al. (1990a, 1990b), Wentworth et al. (1992), and Ford et al. (1993), in the Georgia and North Carolina mountains found little winter use of browse in clearcuts. Since clearcutting removes mature acorn-bearing oaks, these authors contended that clearcutting was detrimental because it deprived deer of a needed winter food source. Harlow and Downing (1969) concluded, however, that since more than 90% of the Southern Appalachians are in timber stands 20 years and older, all relatively devoid of deer forage during the winter, more forage-rich cuttings, not less, would be desirable. They believed that without forest disturbances deer become overly dependent on acorns, a food source that often is unreliable.

Another consideration pointed out by Crawford et al. (1975) is the long period of time between most regeneration cuts. Following canopy closure, a decade or two after clearcutting, the forage supply declines and remains scarce until another regeneration cut is made. To avoid such a feast or famine situation, an even flow of deer foods can be maintained by making clearcuts smaller and more frequent. Periodic thinning or other intermediate disturbances also would be beneficial.

Clearcutting, mainly because of its unsightly appearance, has been singled out by some as an example of the "evils" of logging and timber management. Largely ignored by opponents are the many studies which have shown that clearcutting can be a proper and workable method for regenerating new stands of valuable fast-growing, light loving species and, at the same time, providing habitat benefits to many species of wildlife. We hope this manuscript contributes to a more complete understanding of clearcutting by providing readers sufficient information to draw their own conclusions.

Cost Share Funds Available for Loggers, Landowners

Loggers and landowners can both benefit from a Missouri Department of Conservation (MDC) pilot cost share incentive program called the Best Management Practices (BMPs) Conservation Innovation Grant (CIG). The grants are focused on encouraging timber harvesters to use good practices that protect soil and water on private land timber sales in 57 counties across the state.

According to MDC Forest Products Program Supervisor, Jason Jensen, the grant is designed to be a partnership between loggers and landowners as they do business together. If approved, the cost share pays loggers $10 to $20 per acre and landowners $5 per acre to implement BMPs on their timber sales.

To participate, Jensen says, loggers should sign up for the cost share program at their local MDC office. The program requires the logger to complete the Professional Timber Harvester course offered by the Missouri Forest Products Association or attend a BMP training class with the Department of Conservation. The deadline for completion of projects is September 1, 2013.

To find a Department of Conservation office, go online to www.mdc.mo.gov. To find scheduled Professional Timber Harvester training classes go online to www.moforest.org.

Missouri Timber Price Trends tracks market prices for Stumpage. Reports on the Stumpage Market are received from Missouri Department of Conservation Resource Foresters and private consulting foresters. Stumpage refers to timber sold on the stump and does not reflect delivered mill prices. These reports should serve as a general guide to track stumpage prices. Landowners should not use this report to replace a timber inventory and marketing assistance as methods of conducting a sale. Missouri Department of Conservation Resource Foresters will be able to provide information on current, local market conditions. Details of all private sales and delivered prices are kept confidential.

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